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WESTERN FARMER AND GARDENER.

INDIANAPOLIS, WEDNESDAY, APRIL 15, 1846.

POTATO ROT---LATE NEWS.

We gave an outline of Dr. Buckland's views of the potato rot, not long since; if correct, Dr. Locke thinks, the West has little to fear from the potato rot. But it *has* prevailed, to some extent, in all the Western States. In an article before us, Dr. Hildreth, of Marietta, Ohio, says, that, in that State, it "destroyed large quantities of this valuable vegetable."

This disease is likely to work a revolution in the crops of Great Britain. Sir Robert Peel states in his great speech on the corn law that nine-tenths of the crop in Ireland was destroyed; and, on the question, where seed potatoes for planting in 1846 could be procured, he states that it required one-eighth of the whole crop for re-planting. It now appears that it will not do to plant the seed of 1845. The London Gardener's Chronicle, for February 21, and also for February 28, contains alarming accounts of the breaking out of this disease in its worst forms, again *this year*. Of course, reference is had to potatoes raised in hot-houses and under frames, for early market purposes. Instances are given, where the whole *forced* crop has been damaged or cut off, in nine different, and in some cases, widely separated districts of England. It has also appeared in Scotland, in places hitherto free from it. The crop will of necessity be abandoned as a staple crop. Indeeed, this is the urgent advice of no mean anthority, already. Professor Lindley says to the Irish: "you cannot afford to gamble in the article of food. Certainty is indispensable in your case. Turn, then, to oats: they are much better food than potatoes, and can be relied upon. Potatoes are a lottery in which the prizes, when you win them, are not worth having. It is, in any case, a shame to plant the most fertile land in Europe with the worst kind of food which the earth is capable of yielding; and, in the present conjuncture, it would be a wickedness to do so, when the danger that attends it is thus providentially discovered in good time."

It is impossible to determine before-hand whether a tuber is sound. It may have every appearance of health, and yet be tainted. Neither chemistry, philosophy, botany, the unaided eye, or the glass can aid in detecting signs of evil, which, nevertheless, appear afterwards.

It is a melancholy thing to see a brave and generous hearted people reduced so low in the social scale as to be absolutely shut up, for bare sustenance, to a crop pronounced by Prof. Lindley to be *"the worst kind of food which the earth is capable of yielding;"* and yet, even that resource is now cut off. The potato crop of Great Britain for 1845

was excessively damaged, (probably three-fourths of it injured) and the present appearances would lead us to believe that there will, in 1846, be a great change of crops, by the substitution of grains for roots—and a wide, if not general abandonment of the potato crop. This disease will form an epoch in agricultural and botanical history.

EDITORIAL COURTESY.—Our friend of the Ohio Cultivator seems to be an excellent disciplinarian. He uses the rod among the large family under his editorial care, with no little effect; and while we were enjoying the sight of a flagellation in his last number, to our consternation he began to lay his ferule upon us! It seems some one of his readers wrote an article for the Springfield Republic, (O.,) with a porcupine's quill, in which he both censured Mr. Bateham and praised us. Thereupon, after a suitable administration to the sinning correspondent, he gives our unoffending head a blow which makes our ears tingle. We give the paragraph, italics and all, as we find it. If it is a *compliment*, we receive it very much as we should a present of a bushel of chestnuts with the *burs on*, or a dainty present of a pair of pet hedge-hogs. But if no compliment is meant, then we are prepared, with honest Dogberry, to pronounce it "flat burglary:"

"But 'the unkindest cut of all' on the part of our sapient critic, is, contrasting our paper, as he does, with the Western Farmer and Gardener, and referring us to its editor, the Rev. H. W. Beecher, for an example of editorial talent and propriety. We willingly concede to that paper all that is claimed in its favor, but we insist that it is altogether unreasonable and unkind for any person to expect us to display *such talent and dignity* as one, who, besides having the advantage of being *college learned*, has a *reverend* prefix to his name, and may reasonably be supposed to have received no small share of genius and talent as a paternal inheritance from a *doctor of divinity* highly distinguished for these gifts. But we, *unfortunately*, can claim no higher paternity than a farmer and gardener, and from the age of twelve years to that of twenty-two, we were actively employed in the field or the garden, with the exception of the winter months in which we were engaged in the 'pursuit of knowledge under difficulties.'"

SPECULATIONS ABOUT PEAR-BLIGHT.

In the American Agriculturist for April, we find an article on the pear-blight, from which we extract, not because it is correct, but because it is a good example of unsafe speculation:

"About twenty years since, I came to this place and located myself as a farmer. At the time, there was a nursery of young pear trees in the neighborhood, which was soon divided among the lovers of good fruit; these trees have mostly been destroyed by the blight. Some were planted on a farm which I have since purchased. When I came into the occupancy of it, there was one so large that I did not think best to remove it for fear of destroying the tree; the other was moved and planted in a very different soil. The tree that remained soon showed signs of blight. I went and cut off the limbs which were affected. The next season, directly after it had put forth its foliage, the disease made its appearance again. I now resolved to cut the diseased part of the tree away at all events. I commenced with cutting, as I supposed, low enough; but cutting the same limb several times, I found the bark defective in most instances. The bark on the flourishing limbs was apparently healthy; but, on examining the bark on the body of the tree, I found it entirely dead; there was not a green spot in going round the tree, for I took the entire bark off about six inches in width, and yet that tree produced a good harvest of fruit; one of the pears weighed twenty ounces. The tree never leafed again, but sprouted from the root.

Now the examination of the above case was satisfactory evidence to me that the diseased part of the tree was the bark, and not the wood; but for the remedy I am indebted to your correspondent above alluded to. Although I have not been troubled with the disease since—perhaps from the fact that I have occasionally washed my trees with the remedy proposed; but I do not attribute it to that altogether. It is my opinion that the pear flourishes best in a moist soil. What has led me to the conclusion is this; the trees which I first planted from the nursery above mentioned, were planted in a soil mostly composed of loam and water, found in digging from six to eight feet deep, while the tree I have just described was on a soil composed of sand intermixed with gravel, to the depth of certainly twelve feet, as found by digging—how much deeper it ran I know not. It has been a matter worthy of observation to me, that, almost invariably, the trees on the driest land have been destroyed. One of my neighbors has quite a number of trees which are planted on loam underlaid with clay. These have suffered much from the disease. He is making vigorous efforts to restore them, by pruning and digging a trench in circular form, about four feet from the trunk of the tree, and, during the heat of summer filling it with water daily. Whether he succeeds or not, is yet to be known."

The case first mentioned is one of the most common and simple forms of cold-blight. We could, literally, exhibit a thousand specimens of this affection, now existing in our apple and pear orchards.

The winter of 1845–6 has been dreadfully destructive of fruit trees. The congelation from which the affection proceeds would, of course, affect the *bark* first and most severely. But, often and often, it also deadens the sap wood, and sometimes the whole tree is killed at once.

The crop of fruit produced by this tree, after its bark was dead, is a very familiar occurrence.

The upward current of sap does not, in any way, have to do with the bark; it is a current with-

in the wood. After the leaf has dealt with the sap and prepared it to be food for the plant, it passes downward between the bark and wood, distributing itself to every point of the tree. But if by girdling, or disease which, as in the case quoted, amounts to girdling, it cannot pass downwards, it is simply dammed up; and often the crop of fruit is improved by it; indeed, this is the theory of ringing or decortication, some times resorted to upon *branches* for the purpose of procuring larger and finer fruit.

The fact that the pear flourishes best in a moist soil, is far from encouraging. These *flourishing* pear trees are the ones the most certainly obnoxious to the blight. A rich, moderately moist loam will, without doubt, produce a rampant growth; but the wood will be coarse, the texture spongy, the habit of the tree *sensitive*, and its juices thin and weak. The first time that severe cold overtakes it while the wood is unripe or the sap at all in action, it will be stricken with the blight.

The fact that trees upon a warm sandy soil, suffer more with blight, may be true in the experience of this writer. But it is far from being generally true; the very contrary is true. A rich sandy loam upon a gravelly subsoil is, at the west, the best soil for the pear. For, after all, the best course of treatment for this noble, but too dainty tree, is a compromise among difficulties and dangers.

A moist, fat soil will predispose a tree, the most frequently, for *autumnal* and *winter* blighting. A warm sandy soil will start the tree earlier in the spring, and will, therefore, give occasion the most frequently to *vernal* blights. But very severe cold after trees are fairly started off in spring will not occur once, where severe autumnal cold upon unprepared wood will happen ten times.

That trees on *dry* soils suffer most from blight, we are slow to believe. "Loam underlaid with clay" would hardly be called a dry soil.

The man who is digging a trench to be filled with water, about his pear trees, had better spare himself the trouble and cut down his trees at once. Is the pear tree an aquatic plant?

The whole cultivation of the pear may be stated thus; *always secure a fine-grained growth, thoroughly ripe before cold strikes it.*

EFFECTS OF THE WINTER UPON FRUIT TREES.

We throw together several very interesting extracts from business letters on the condition in which our fruit trees have come out of the past severe winter. The views of Mr. Ernst deserve attention. When sagacious pomologists shall see their way clear, like Mr. E., to adopt the true theory of fire-blight, the delusions which have long prevailed on this subject will pass away.

We learn from the Prairie Farmer, and from private letters, that the destruction of fruit trees in northern Illinois and Indiana has been as great as in the central regions described by Mr. Sigerson.

COMMUNICATIONS.

BLIGHT---PROSPECT FOR FRUIT.

In the Farmer and Gardener, second volume, fifth number, I saw an article written by Reuben Ragan, on the blight, or the freezing of the pear trees, that is very satisfactory to my views on that subject; but in travelling over a great many counties in Indiana and Illinois, and making a great many discoveries in this State (Mo.,) I thought I would give my opinion about the matter. I left Indianapolis some time in the last of January, and made it a general rule to examine the orchards in every neighborhood. I found the first defect in trees of Mr. Bonner's on the Wabash, where I went to get some cuttings of some fine varieties of the sweet cherry, and lo, I found them dead to the ground. Some few days after, I visited Mr. Reagan in Putnam county, Indiana. I found his orchard in the best condition of any that I have seen, and the prospect I thought good for half a crop of fruit—that is, his peaches and pears appeared to be injured. His Seckel pears, I thought, were sound.

I then went on into Montgomery county, south of Crawfordsville, to one Benjamin Smith's, and there I examined a beauiiful young orchard of about 200 apple trees. We found about one-half of them very much hurt by the freezing, one-third fully dead. We then went into Mr. Thomas Armstrong's orchard, (next door neighbor,) and found his orchard in a fine growing and healthy condition, but on examination, found his old Newtown Pippin trees killed down to the ground: the Campfield and some other kinds are deadly hurt. I travelled from there down the Wabash to Terre-Haute, and I found that about one-half the peach trees, (that is my opinion,) will be lost. And from there I went through Illinois to St. Louis, Missouri, and on all of the flat country, I found, as I thought, the peach trees all dead. In fact, there are many farmers cutting their trees down for the purpose of making them sprout from the ground, and in my own fruit garden I think there will be 50,000 of my young trees killed. The Green Newton Pippin, Yellow do., Campfield, Golden Russet, Golden Pippin, Pryor's Red, Holland Pippin, Rhode Island Greening, Red, and Sweet Pippin, Monstrous Pippin, Bellflower, Newtown Spitzenburg and the Maiden's Blush at this time, it appears to me, will be lost; and out of about 2,500 pear trees of splendid growth, and of fifty varieties of the choicest selections, I shall have but two kinds that I can depend upon; these are the Early Butter and the Orange Burgamot: and and I fear that even the latter has been injured, as the wood is a little black. I find some seedling stalks of the pear that are sound, which I shall dig up and set for standards, as I have got to be-

lieve that our finest of the new varieties of pears will have to go far from us.

I have about 8,000 peach trees, of splendid growth, that are all frozen, and I will have to cut them off at the ground. I have again sent to Cincinnati for these varieties. On the banks of the Mississippi we will have about half a crop of peach bloom. In low situations the trees are killed in the orchards, and on high places some of the tenderest varieties are sound. The fine cherries are all lost with few exceptions.

Mr. Ragan and myself differ in opinion about the time of the year that the fruit trees were killed. I have almost lived in a nursery of fruit-trees for twenty years, and I found my trees frozen in the month of October. I did not make any discovery in October this year, ('45,) but I reported the trees killed before the November freeze, that Mr. Ragan spoke of. We had a freeze in October that froze water one inch thick, but the day I do not recollect. My fruit trees were at that time in a very growing condition, and the tops were wilted as soon as the sun shined upon them, so that it could be seen for some distance. The year 1831, I was left in the same condition. The month of October was very warm, cloudy and rainy, and it rained on until the middle of November the same year, and the waters were extremely high, and the corn-fodder was yet, at that time, green. The weather changed to very cold; the corn froze so that the people of the west had to send to Cincinnati for their seed corn, and by the first Monday of December the rivers were all froze, so that wagons passed over on the ice, and at the same time the leaves were fast and the trees green. The orchard trees died for two years, and it was the opinion of the farmers that '32 done its share of the destruction, but I have never had a better year for young fruit trees than the year '32, although the year '32 was equal to '31 for cold. I believe that no climate can be too cold for fruit trees—that is the apple or pear—in the western States, if the wood is well matured before the cold commences.

JAMES SIGERSON.

St. Louis, Mo., March 14, 1846.

From A. H. Ernst, Cincinnati.—In your last, you request me to drop you a line on the condition of my trees. Nothing but an excessive press of business has prevented me from a compliance with your request to this moment. We have passed through what may be called an unusual and extraordinary summer and winter, which has produced and left effects, long to be remembered by the enthusiastic horticulturalist. It will be remembered that the previous winter was unusually mild, open and dry, and brought in an early spring, which was only interrupted by the severe freezing above alluded to, cutting off all vegetation, and mostly the fruits. The dry weather, however, continued until vegetation assumed a fall like appearance, that is, it became stagnated, and in many instances the cherry and plum trees shed their leaves. This drouth was superceded by abundant and copious showers of rain, accompanied with mild growing weather. The effect was an impetus given to vegetation that forced a new growth,—trees were thrown into bloom and leaf, and keeping up a luxuriant growth to the coming of winter; this, although preceded by a few slight frosts, they were not sufficient to check vegetation so as to cause a gradual obstruction of the sap to mature and harden the young wood to withstand the rigours of such sudden and hard freezing as they were destined to pass through. The consequence is, that most of this latter growth is destroyed. This applies more particularly to the peach, cherry and pear trees. The wood of the apple and plum are but little if any affected. The fruit buds on all are more or less injured, to what extent is difficult now to form a correct estimate, peaches and cherries have perhaps suffered most, though I am inclined to think from the appearance of my trees the prospect for a partial crop is by no means unfavorable, as the season is so far advanced that it is not probable we shall have much frost to do harm after the trees have burst into leaf and bloom. Thus far there is but little progress in vegetation, all is like the dead of winter.

Messrs. Editors:—From a close observation of the effect of the past winter upon our fruit trees, I venture to give the following statement of the present condition of our orchards.

One-third of the seedling, and two-thirds of the cultivated apple trees, are injured; a small portion of which may partially recover; some trees being injured on one side only. The part of the tree most injured, is the body, and from three inches from the ground upward, and in some of the more tender varieties the injury extends throughout the large branches. The blossom-buds of the apple are, at least, one half winter-killed. The body of one-half of the pear trees in this vicinity, are killed, and some others have the appearance of blight in the small branches. One-half of the plum, and all the peach trees are killed, with the exception of a few growing on very elevated situations. Some peach trees retain more than half their fruit-buds, in a fresh and healthy condition, while their bodies are entirely dead. The cherry is not materially injured, and the German Medlar, Sweet Heart, and the Soft-shelled Almond, have proved more hardy with me than the peach.

Those persons who wish to save their peach trees, should lose no time in cutting them down even with the ground, before the injured sap flows into the root and destroys it. Trees served in this manner, will throw up numerous sprouts, which will, in a few years, form thrifty young trees, capable of supporting large crops of fruit. Small apple trees that have been killed, may be cut off at the ground and grafted, and thereby save one or two years in the growth of the orchard; but where the trees exceed one and a half inches in diameter, they should be dug up and replaced by thrifty trees from the nursery.

For preserving large bearing apple trees where the injury only extends a few feet up the body of the tree, I propose the following plan: With a sharp drawingknife shave off the injured bark and wood as far as it extends up and down the body of the tree, then cover the wound with hot pitch, which should be tempered so as to form a hard and durable covering. Now take branches of suitable length from some hardy tree and insert them one end above and the other end below the wound, slightly bending them to assist them in keeping their new position. The graft should be

neatly fit to the stock, observing to have the entire surface of the bark of the graft and stock to come in contact. The ends of the grafts and all wounds should now be covered with grafting wax applied warm with a brush, and the operation is completed.

Although the above plan will not make an entirely sound tree, yet it will preserve it in a healthy and flourishing condition for a great length of time. The body of the tree is prevented from rotting by the covering, and the wood kept in a fresh and healthy condition, allowing a free circulation of sap upward in the tree, while it is impeded in its progress down the bark, thereby causing the tree to force fruit-buds and mature large crops of fruit.

Apple trees should never be raised from the stump of a large tree, as such trees are of short duration, their roots becoming decayed and worm-eaten, and they are blown down by storms. It is much better to dig them up and replace them with young, thrifty trees. J. W. T.

Wabash Nursery, Parke Co., Ia.,
March 27, 1846.

McConnelsville Ohio, March 28, '46.

Dear Sirs: —

It is of importance, as has been said by some one, not now recollected, that a selection of good flavored, and long keeping seedling apples of the west, should be made—hence I am particularly thankful for some of the scions sent by you.

We have several such in this region, such as the Putnam Keeper, Rowland's Keeper, Rome Beauty or Gillet, seedlings of the adjoining County of Washington, in which Marietta is situated.

The Bracken is one of our earliest and best, and is a seedling obtained from the county of that name in Kentucky. It is sometimes called Golden Drop.

Of some of these, I may hereafter give you some account for publication, and should a kind Providence continue my existence here, another year, I shall take great pleasure in sending you such grafts (scions) as you, or any nurserymen you may designate, may be pleased to name.

In the first No. of vol 2, of the Western Reserve Magazine, there will appear an article from my pen, respecting the Putnam Russet, to which I would respectfully invite your attention. It appears to me, you and Mr. Eliott have both fallen into an error in admitting this apple to be the Warren Russet. 'Tis impossible that so choice an apple should have been cultivated in Connecticut for 100 years without its being extended over New England, New York, &c.

The apple which Mr. Downing describes as the Boston or Roxbury Russet, answers the description precisely, of our Putnam Russet, yet, there is such a difference in the appearence of these apples (Putnam Russets) when grown on different soils and in different locations, and on young or old trees, and even on the same tree, that no one, who is not familiar with them would think of their being the same. The *trees*, when left to nature, at the age of from twenty-five to thirty years, always appear the same, extending their lower limbs horizontally to the length of twenty-five to thirty or thirty-five feet in every direction—hence these trees should be planted at least sixty feet asunder. But, perhaps, more on this subject hereafter.

THE POTATO CROP.

Mr. Editor: — Farmers in the west, in my opinion, cultivate too many akers of corn and too few of roots. They seem to think, that if they can succeed in raising a great amount of corn, the end of good farming is accomplished; whereas, if they would raise less corn and more roots, their labor would be greatly lessened, and the profits of their farms very much enhanced.

As I am of the opinion that among all roots proposed as food for stock, potatoes are decidedly most profitable, I shall, in the present article, confine myself to a comparison of their worth with that of corn, leaving it with others to squabble about ruta-baga, turneps, beets, &c. An aker of good land, well managed, will scarcely ever produce more than from fifty to sixty bushels of corn. But when put in potatoes, and rightly cultivated, 300 bushels or even more, are not above a medium crop. Nor is the labor necessary to raise potatoes, in the aggregate more, aker for aker, than what would be required for corn. The question then is which is the most profitable for feeding stock, fifty or sixty bushels of corn or 300 bushels of potatoes?

To answer this question, I shall cite as authority a highly intelligent farmer, Col. Wm. Byers, of Washington Co. Va. Some years ago, he assured me that after ample trial he found potatoes, as compared with corn, aker for aker, double or treble its value — that his stock — horses, cattle, sheep, and hogs, after a little training, would eat them in preference to corn. And his statement was founded on very extensive experience, for in one single year, he stated that his whole crop amounted to 10,000 bushels, so that his statement is worth much more than it would have been had it arisen from a mere chimney corner supposition.

The most advantageous mode of raising potatoes I think to be that of planting every other row throughout the corn ground—Col Byers managed them in this way. The ground is well prepared for the reception of the corn; then it is furrowed out, say north and south, three feet apart; it is then checked at the distance of four feet. Every other furrow, the narrower way, is then planted in corn. After the corn is up sufficiently to admit of plowing, which is just about the proper time for planting potatoes, the seed potatoes are dropped in the check of every alternate furrow; The bar of the plow is placed next to the corn and the soil thrown in a ridge upon the potatoes—thus plowing the corn over one way, and at the same time covering the seed potatoes. From this time till the corn is "laid by" very little attention need be paid to the potatoes, further than to keep them pretty well hilled by the plow.

At the right season for digging, the potatoes may be turned out with a large plow, when a cart should immediately follow. From the field they are to be taken to a pool, cleanly washed, and then put up in large cellars well secured from external cold.

This mode of cultivating potatoes and corn together, it will be seen combines several advantages. 1st, the corn has better width; 2d, it is found that potatoes flourish better when slightly shaded than when fully exposed to the burning sun, 3d, but the greatest advantage, perhaps, is that of a happy chemical adaptation. Vegetables, with respect to food or nourishment are very analogous to animals. That soil which affords food to one plant

may be entirely unfitted to support another of a different sort.

A certain vegetable requires for its support certain constituents of the soil, upon which it is or should be placed; those constituents which are not food for it are rejected, and therefore, are useless unless other and different roots to whose nourishment those refuse elements are adapted, insinuate themselves and this without injury to the gowth of the former, find sufficient nutritive matter for maturing them. Now, to a considerble extent, this is believed to be the case with potatoes and corn. While the one exhausts the soil of certain constituents and rejects others, these rejected particles are absorbed by the other. If any one is disposed to call the view here taken of the adaptation of different growths to the same soil, *mere theory*, I will at this time, only point him to the prowling wolf devouring the flesh of the tender lamb whilst its mother, in a distant pasture is feeding quietly upon the green sward.

I shall, perhaps, at some future time, if it is deemed proper, say something as to the manner of feeding potatoes—until then I hope to hear of trial being made of the suggestion above.

March, 1846. TYRO.

REVIEW OF VOLUME ONE---NO. 5.

Apple Worm, p. 89.—I see nothing to forbid the supposition that this is the larva of the *carpocapsa promonella* or codling-moth. The great orchardist might, however, easily have determined the question, by raising the larva to its perfect insect form. I have never found any difficulty in conducting such worms through all their transformations, to the finished moth or butterfly; and the entomological student will find such practical lessons particularly pleasing and instructive.

Preparation of Seed, p. 97.—Cobbett's test of seeds by water, is not unexceptionable, although generally, a safe guide. Some seeds, as the radish, some times have their seminal leaves partially developed in the shell, so as to become specifically lighter than water, and yet promptly grow: other heavy seeds, as those of the locust, will sink after they have lost their vitality. Sound beet "seeds" as they are called, I have kept in water for a week, without being able to get them to the bottom; and during the masceration, fermentation took place, but the seeds grew rapidly when put into the ground, vegetating in half the time that dry seed did, which were planted for comparison. The *true* beet seed would readily sink. I have tried numerous "prepared liquids" to promote the germination of seeds; but have not yet discovered any advantage they possess over simple warm water. If seeds are soaked previous to planting, (and one night's soaking is generally sufficient, with the proper care in seeing that such as repel water, are made wet,) it should be done when the ground is moist enough to preserve the dampness of the seeds; for if the seeds are once dry, after being thoroughly soaked, they will perish.

Radish, p. 101.—There is to me, a peculiarly agreeable, spicy flavor in the scarlet radish grown from *English* seed, which I have not been able to create, by any mode of cultivation, in the root from American seed. Perhaps our editor can furnish an explanation.

Salsafy, p. 101.—Those who are accustomed to cultivate the oysterplant, have doubtless observed a striking difference in the seeds; some being pale and slender, others (the riper ones) darker, rougher and plumper. I have planted both kinds experimentally, and find the light-colored ones to sprout often a little earlier than the others; (perhaps because of their thinner envelop;) and I have noticed no difference in the roots of the two sorts.

Location of Orchards, p. 107.—The mind that has a copious fountain of instruction in itself, is well qualified to *select;* and I think the editor has in no instance been more successful in transferring good things to the pages of the Farmer and Gardener than in this instance. Dr. Kirtland speaks of the destructive effects of *sleet* on fruit trees in *winter:* (see a memorandum in "Springs in Wayne County," p. 39, of the present volume, under 1838.) Respecting "altitude" I may remark, that it will operate favorably or unfavorably according to circumstances: thus, an elevated situation will sometimes prolong the growth of a tree to too late a period in the fall; while the trees in a valley may be kindly arrested in their vegetation by seasonable frosts, so as to be able to endure subsequent intense cold. Very appropriately indeed, I am able to illustrate from my own observations this year: my peach orchard stands on a declivity facing the north; the most elevated trees being about 240 feet above the level of our branch of Whitewater, and the lowest trees perhaps twenty feet below the others. The bark of a number of the trees on the top of the acclivity is split open, and with the wood, is partially deadened; and many of the twigs are entirely destroyed. I have observed nothing of the kind in the lower trees; but the fruit is killed in all; and this appears to be the fact, in all orchards equally elevated; but a few trees growing 170 feet below this altitude, have now, living embryo peaches. Allowing myself to skip from the retrospective to the prospective, for a moment, I request the reader to review Tyro's disconsolate picture of our climate, p. 94 of the current volume, in connection with Dr. Kirtland's remarks on the fruitfulness of *his* pear trees; and "take a hint" of encouragement.

Lupinus, p. 116.—This genus of plants is very extensively cultivated. I think travellers speak of it as occurring as far south as the cape of Good Hope; in Egypt, Cochinchina, and other parts of the eastern hemisphere. We have it in South America, and in our southern States; and on the Rocky Mountains, I believe our botanists have found fifteen or twenty species. If I remember rightly, it was not far from the Mallade River, that Townsend says, in his narrative, their caravan entered a delightful valley, profusely covered with splendid blue lupines.

Enquiries, p. 146.—I am right glad to find an increasing disposition among the readers of the Farmer and Gardener to *ask* for information. There is no better way for a master to know what his pupils want. Information *called* for, always comes with a peculiar zest, not only to the querist, but to others, who are curious to know how the enquiry will be answered, how much or how little the answer will accord with what they would have said; or how long *they* have been wanting to know that very thing.

Clean Culture, p. 157.—The statements in the first paragraph are too unqualified: for instance,

after a drought of *eight weeks* (and a remarkable drought it was) I dug holes four feet deep for gate posts in a grass sod among the roots of an oak and a beech tree; and after passing through, perhaps two inches of dryish sod, the residue of the earth, which was very argillaceous, was not dry and friable, but perfectly plastic. Some years ago, I made some critical experiments on this subject; but perhaps I may find some more suitable occasion to mention them, in the course of these reviews.

Mineral Salt, p. 158, (second column. — If the reader understands "mineral" salt to mean *fossil* salt, all will come right; but strictly, "ocean" salt is a mineral salt.

Rancid Butter, p. 159 — Chloride of lime may sweeten rancid butter, for aught I know; but the *Echo du Monde Savant* might as well talk of thirty drops of a brickbat, as of this other *solid*.

Episode. — The fabled frog attempting to distend himself to the dimensions of an ox, teaches us an impressive lesson. But when the inflating power is *extraneous* to one's self, what is a poor creature to do? The editor's kind commendations of these my humble labors, are duly appreciated; but I beseech him, in all sincerity, cautiously to stop short of the bursting point, by not blowing me up *too* tight.

In the catalogue of plums, &c., in a late number, I noticed some errors in the enumerations. Perhaps these errors may perplex some, in making the smaller selections. J. T. P.

The Way Friend W. Missed it with his Grape Slips.

He cut his Catawba slips about ten or twelve inches long, and set them upright about half the length above-ground. Most of them lived, and sent out their roots and tops, and in those cold days of Christmas they were frozen dead down to the ground. He has now hundreds of them with live roots and dead tops, and a good round price was offered for them by wholesale for the Catawba grape for transplanting. But he is an honest man, and is afraid to sell them for fear they will not all grow. If he had laid them at an angle of 45° pointing *from* the south, with one bud, this the upper bud, just at the surface of the ground, and then spread a little straw or a few leaves over them in the fall, not one of them would have been injured, and he would have had more root and twice as much and twice as hardy a top the first year. Parvus.

LETTERS OF A COSMOPOLITE---No. 5.

Cincinnati, March 16, 1846.

Editors of Farmer and Gardener: There is much feeling and loud talking around about here at present, upon the subject of taxation — a sore point in all democracies. It is said by people here, that the new tax bill is manifestly unfair — indulging and fostering one class and grinding another; but strange to say, each one thinks himself the injured one, and all others the favored class, so that here and through the State there is much discontent at a prospect which seems little short of arbitrary, direct personal taxation. In my ignorance and simplicity, the inference I draw from this general dissatisfaction is, that the necessities of the State are larger than common, while the people have not yet properly studied *the morality and duty of tax-paying*. I will take this then as my text, and preach a lay sermon for the benefit of your readers, which I will endeavor to make short and true, though it may fail in attractions, and effect.

Very few tax-payers ever think of the nature of this duty, performed as seems to them compulsorily. They are apt to consider it as a necessary evil, which they must meet and bear bravely, as they would an endorsement debt, making the best of it, or must shirk from as they do from paying a parson's salary or a doctor's bill after health has returned. But in fact, the imposition and payment of taxes, is as really a regular business transaction — value received and exchanged, as any case that can arise.

The arts of peace and prosperity, the pleasures of luxury and wealth, the honors and advantages of science and education, the safety of person and property; in short, all social enjoyments and all noble affections and pursuits are not only preserved, but are utterly dependant for their very existence upon that stability in society which can be guarantied only by constitutions and well executed laws. When a citizen, therefore, pays a tax levied for the support of government, he is actually purchasing, and at a very cheap rate, benefits that are essential to him as a member of society; for the sake of which, were there loss impending, he would freely give half his substance, and still be thankful.

But the stillness and constancy with which these benefits come and surround us, makes us forgetful that they really exist. We feel too much that law and order came by nature and administer themselves, thinking no more of them than we do of sunlight or rain. Indeed, the highest evidence of perfection in a government is, that every one feels safe and happy, while all are unconscious that they are governed — so stilly and smoothly does the system move.

This very unobtrusiveness of government is the strongets plea, that when her necessities are stated, and her children called upon to sustain their common mother, they should come out cheerfully and hold up the arms that have so long supported them.

In the complexity of individual interests that must exist in every State, it is *absolutely impossible* that the scheme of taxation should bear equally on each payer. No human foresight or ingenuity can ever get into the private business of half a million men, so as to estimate each aright, and say to each "you are protected and encouraged in a business which is worth so and so, and therefore you ought to pay so and so to support the government that keeps you;" this is impossible. But because the burden is not borne equally, it does not follow that any one is cheated, or that the tax is greater than the benefit received for it. Because A pays more than B, it does not follow that A has paid too much, but that B has paid too little. No one is cheated; for, suppose my neighbor buys his cow for a dollar, I am not therefore cheated when I give fifteen dollars for mine, for the cow is worth it, and I get my milk and cheese and butter at a *cheap rate*, even though he may get his for nothing.

The principle is plain, that the fairness or cheap-

ness of any transaction depends upon the wants of the purchaser, and the extent and terms upon which they are satisfied by the seller.

It will always be the case, too, that in this unavoidably unequal taxation, particular classes in society will sustain most of the public burden, for the reason that they are more accessible and the property more tangible. Cash, bank stock, credits, plate, jewelry, mechanics' tools, lawyers' salaries, doctors' fees, &c., must always appear but sparingly and very unfairly, when compared with the landed and real estate that appears so large upon the tax duplicate, because, honest or dishonest, these kinds of income or perquisites of wealth never seem to have any value at all in their owners' eyes, during the few moments that he takes to report their worth *under oath!*

But all these, in equity, ought to pay a greater per centage to the revenue than real estate; but the latter being open to view, cannot be shuffled off and concealed when tax-time comes, so the upshot of the matter is, that farmers and land-holders will continue to pay more than is their actual share of the public debt; still *they* are not cheated. All we can say of the matter is, that the habits of capitalists and monied men, in their present manner of treating the *duty* of tax paying is highly questionable. But I repeat the principle, that my neighbors' immunity, upon grounds, that, at best are of doubtful morality, does in nowise affect either my ability or my duty to meet the debt devolved upon me as a true citizen and a patriot.

But it may be said, that we may surely grumble at extraordinary taxes laid to cancel a State debt which may have been rashly incurred, and which has yielded no benefit to the State and people.

All our western States are more or less in debt; in some it is accumulating every year, and in all it is a sad burden upon the prosperity of the State. But I have never yet met the man that seemed to feel the least *personal* responsibility to support the credit and good faith of the State. "*The State owes, but the citizens are free!*" That's the doctrine. Hence, whenever a legislature feels inclined to call upon each citizen and ask for his share to redeem the credit of *himself* and his fellow-citizens, the tacit answer is, "here's a new tax, how can I shirk out of it?" If the revenue law is as stringent as the circumstances demand, then we hear of nullification and private rights. The people seem determined not to sustain any legislature that asks them to be wisely honest; and while public sentiment sustains the law that enforces individual integrity, the whole mass go hand in hand to fetter the hands and silence the tongue that would labor to restore or support the integrity of the whole!

The question is no unimportant one — whether the good faith of the State does not embrace the good faith of each citizen as its pledge; and whether moral wrong attaching to the State does not stain the character of every member. It is too serious a matter to be mooted in popular angry debate; it belongs to the conscience of every freeman, and that it has not heretofore been so considered and appreciated, seems to me to be a full cause, why no advance is now making in the matter of *State and corporation morality.*

T. K. B.

NOTES BY THE WAY---NO. 2.

On my route I put up with a farmer who appeared to have things snug and comfortable around him, and being pretty inquisitive, as is my custom when among the farmers, my enquiries elicited the following history :

Eleven years ago he took a lease on eighty akers, and embarked his fortune of himself and wife, and one, little, year-old boy ; an old mare and perhaps a plow, an axe and grubbing hoe, and a note of hand for ten dollars, but in debt five—in the wilderness where there was "not a tree amiss."—In a year or two, he entered a vacant forty adjoining, and a few years after bought the eighty on which he had commenced his improvements. Since that time he has bought another eighty adjoining, pretty well improved, and now owns a farm of 200 acres, nearly all of which is under fence, and nearly half under cultivation. The whole cost of his land is not far from $1000, and nearly all paid for.

Four years ago, a comfortable house, a good frame barn, and nearly all their furniture and farming implements were destroyed by fire. A few benevolent neighbors gave him a few grists of corn, the only aid he has received toward replacing his buildings, which are now a house of four rooms, with three substantial fire-places, not quite finished but well furnished, a good sized log barn and stables, a new wagon and a fair supply of farming implements. He has a fine increasing stock of horses, cattle and sheep, but not yet a full supply. From a beginning of five or six sheep, he has supplied many of his neighbors with flocks, continually improving his own and keeping the best,—and has now twenty-five or thirty head of fine sheep, and designs increasing to a large flock.

His fields are well arranged and surrounded with substantial fences. He had several hundred bushels of corn on hand and more fodder than he could use. The orchard had also been remembered, and a variety of fruit trees were nicely arranged around his dwelling. The appearance of his farm gave evidence of industry and care, as also did the internal arrangement of his dwelling, and unless appearances were deceptive, the two had been indeed help-mates to each other, and to their united efforts is their success indebted.

His care in preserving the fruits of his toil after having gathered it, was very apparent; and I found him in the morning repairing a breach which had admitted an intruder into his select corn crib the night before. The crib was a simple affair, made of rails built upon four posts, some two feet high, and boards were put on top of the posts, and extended out on every side far enough to prevent the entrance of rats or mice. By some accident a piece of board had been split off, and a rat or more had entered, and the shelled corn that had fallen to the ground quickly caught the watchful eye of the owner, and gave evidence of the intrusion, and he at once set about the repair without waiting for a more convenient season. He said he did not relish bread made from corn which rats and mice had been too familiar with, neither did he like to be at much expense to feed them. I thought his wife's corn bread for breakfast was much sweeter than any I had eaten for a long time, and concluded if I could get that man's meal, I had rather pay double

price for it, than be thinking about rats and mice all the time I was eating.

Here is a brief sketch of an Indiana Farmer,* who in the short space of eleven years had risen from nothing to an honorable independence—from the lease of an eighty aker wilderness lot to the owner of a splendid farm of 200 akers, and that situated in one of the interior counties of the State, where he has had but small benefits from market,—an evidence of the effects of industry, energy, and the proper application of patient toil. W. S. J.

RATS.

If A. B. McKee (a querist in No. 7,) will consult the first volume of the Farmer and Gardener, he will find, perhaps, the best remedy against rats yet invented. (By the way, this frequent reference of correspondents to the first volume, shows the estimation in which it is held by them.) My own experience with this preparation of Dr. Ure's, is briefly given in a note on p. 11 of the present volume. But in order to induce a trial of it by others, I will state further: that our premises were at one time fairly overrun with this vermin; and scarcely any thing could be secured from their depredations. Yet, a very short time after using this compound, not a rat was to be seen or heard. More than a year has now elapsed, and the choicest tid-bits to a rat may be left unprotected anywhere about the house, without molestation, up to this time. Such an immunity from these undesirable tenants is no small comfort to the housekeeper.

I have ascertained, also, that if kept in a glass vessel, well stopped, the phosphorus grease will retain its virtue a long time. My country tenant complaining that the house abounded with rats, I gave him some of the compound which I had preserved, about a year: he used it; and in a few days afterward, told me the rats were all gone; and up to this time, the house has been insured against their invasions.

If any other correspondents should try this preparation, I hope they will be generous enough to inform us of the result; that by repeated experiments the reputation of the phosphorus mixture may be established as an efficient *rats-bane;* or proved to be as delusive as will o' the wisp.

Caution.—I would advise those who are not accustomed to chemical manipulations, or conversant with the properties of phosphorus, to have the preparation made by some one well versed in such things; and one who will prepare the mixture faithfully. A dime ought to purchase enough to kill hundreds of rats. I give this caution because *phosphorus-burns* are often exceedingly bad, lasting for weeks and months. J. T. P.

BOCHARA MELON.

Sugar Grove, Hendricks County, Ia.,
4th mo. 25th, 1846.

Friend Beecher:—I promised to give a report about those seeds thou gavest me last spring; the following is the result: The Bochara melon is large, striped, and handsome; very thin rind; red meated, somewhat firm but very sweet and melting, vine bears until frost, and the melons will save a month or so after ripe. The other kind of water-melon is not a separate variety, but mixed; some of which are very good, but in no way superior to the Bochara. The Oregon corn is, perhaps, superior to some varieties cultivated, and is worthy of further trial. I have distributed some. The ear I sent is about a fair specimen. The madder is growing. Very respectfully, J. B.

If you have seeds of the melon to spare, send us a few for distribution. *Ed.*

EDUCATIONAL STATISTICS.

Messrs. Editors:—Believing that you are the friends of education as well as agriculture, I thought I would take the liberty of furnishing you with the following results, which answer for the census of 1840. The population at that time in the States was over 17,000,000. The number of persons who could neither read or write, was about 541,793 which number only includes all white persons over twenty years of age. This number was apportioned among the different States, as follows:

Maine	2,240	S. Carolina	20,600
N. Hampshire	949	Georgia	30,700
Massachusetts	4,448	Alabama	22,590
R. Island	1,614	Mississippi	8,360
Connecticut	526	Louisiana	4,860
Vermont	2,270	Tennessee	58,530
New York	44,450	Kentucky	40,000
New Jersey	6,385	Ohio	35,394
Pennsylvania	33,940	Indiana	38,100
Delaware	4,880	Illinois	37,500
Maryland	11,817	Missouri	19,457
Virginia	58,780	Arkansas	5,567
N. Carolina	56,602	Michigan	2,170

I judge this table to be nearly correct, but not quite so, as it has been made since the census of 1840, but it will, I think, give a general idea of the number who receive the benefits of an education and of those who do not receive such benefits.

We see that the great State of New York with a population of two millions and a half, has more than 44,000 who can neither read nor write. And Tennessee with a population of more than 829,000 has over 58,500 white persons over twenty years of age who know nothing of the blessings of an education. Ohio, with a population of more than 1,500,000 has more than 35,000 who have not received the great blessing of a free people—an education. Look at Indiana, with a population of 686, 866, (in 1840, remember,) we find more than 30,000 who do not know how to read or write. But the condition of the slave States is yet more deplorable. Kentucky, with 779,828 whites, has near 40,000 who have not any education. And it is a fact that education in all the slave-holding States is in a far worse condition than in those States which have no slaves. This state of things ought not to be, in a land of books, such as ours. Where an education can be obtained at so little trouble and less cost. The school master is abroad throughout our land; very true; but many, a great many are not qualified to teach "the young idea how to shoot." And I believe that this is one of the principal reasons why so many people in our

**How will he compare with the model farmer of Ohio? I will give his name if you will send him the Farmer and Gardener.*

country know nothing of reading and writing. Let us send the school master all over the land, but do not send those who are not competent to undertake the business. And in order to get good teachers, let us pay them a sum for their services which will encourage them to remain in their profession. As it is at present, we have many schools and teachers, but they, the teachers, are here to-day and gone to-morrow, from the fact that in nine cases out of ten, their compensation will not justify them in remaining at the business; consequently, those who do remain, have not much ability, and are glad to get anything.

These thoughts have suggested themselves to my mind, and if you think them of any account to your readers, you can publish them. For my part, I am a friend of education, although I have but a poor one, and wish to see every one in the country with a good education. It is the best inheritance that a parent can give his child; for it is one which will always remain with him as long as he lives. And how necessary for the person who would be a good agriculturist, that he should have, at least, a common education. With this he can have a peep into the laboratory of Nature, and understand those laws which appeared to him before to be rapt in profound mystery.

Knowledge is the great lever of the civilized world. Give the mass of the people this lever, let them understand how to use it, and you put that into their hands which will make them a great, a free, and a happy people.

I am, &c A Friend of Education.

Near Cincinnati, Ohio, March 23, 1846.

"FODDER HOUSE" and BEAN SOUP.

I trust that Viator's benevolence *will* compel him to tell us how he makes his fodder-house. I have seen a great deal of rustic ingenuity displayed in these western States; and have been forcibly reminded by it of the familiar saying: Necessity is the mother of invention. The simplicity, and cheapness and utility of some of these country contrivances, have astonished me; and some have been so unintentionally blended with the ludicrous, as to have exceedingly tickled me.

As "M." appears to have taken charge of the culinary department of the Far. and Gard., (and the reader has no occasion to regret it,) will he* tell us how to make *bean soup* after the most approved manner? I ask on behalf of one of my female friends. J. T. P.

UTILITARIANISM AND HORTICULTURE.

Brookville, Ia., March 26, 1846.

My dear Sir: — It is a fact (have you observed it? (that comparatively very few men seem to take a *deep* interest in pursuits connected with agriculture, horticulture, &c. until they have arrived at the age of thirty-five or forty.

How important this is for mankind, collectively and individually, is glaringly manifest. How much the world loses by this fact, it is not easy to calculate. Could we all see in our young days the great importance of these pursuits, we should be induced to lay the foundation for many comforts in after life, which so few possess. Our country would be filled with the best fruit in all its varieties—we should have gardens well stocked with flowers and vegetables, which would not only add to the comforts and luxuries of life, but could enhance the beauty and value of our property. How easy it is to plant one or two good grape vines, yet how few there are who do it. How easy to plant a few choice apple or pear trees—a plum, peach or cherry tree, yet but few at the proper period of life will do it. Whence arises this procrastinating spirit? Some I have heard excuse themselves by saying that it required a tree so many years to prepare it for bearing fruit, that they may not live to derive any fruit from it. Others put it off from time to time, waiting for a convenient season—and many, it seems, think nothing at all about the matter. The truth is, Mr. Editor, that to about five-eights of our population (so far as regards observation) this life is a perpetual game of blind-mans-buff, in which the players cannot be made sensible of any fact, until they literally run their noses against it.

It is wonderful that so many should be entirely indifferent to the beautiful operations of nature which every where surround them—that they should shut their eyes and stop their ears and grope along in darkness and silence amid the songs of birds, the hum of insects, and the splendor of the vast variety of flowers and fruits which the beneficent Creator has so bountifully bestowed upon man.

I know persons, who, after a residence of thirty years with plenty of room—can scarcely show you a fruit or flower-bearing shrub, plant or tree. This is a humiliating confession, and scarcely credible, yet tis true.

It is true that money is valuable; and when rightly sought and rightly disposed of, greatly adds to our convenience and happiness. But when almost every comfort, and everything beautiful, is sacrificed to its accumulation, it becomes anything but a blessing.

Thousands object to much useful, and all ornamental planting and gardening, for the reason, that it interferes with more useful employments—that is, does not bring in the actual dimes. This is all wrong. Much of the labor of gardening and planting may be done at times when we have no other work on hand; and if money itself should be the sole object, it may also be made profitable. There is a kind of misplaced utilitarian spirit abroad, which in its tendencies and attractions, moves constantly towards the *dollar* point.

For what were all the fruits of the earth, and the myriads of perfumed and magnificently colored flowers created, if not for the use and enjoyment of man? Shall it therefore be called unprofitable to rear and admire them?

Hundreds of persons possessing ordinary intelligence, and professing to be Christians, are entirely dead to the operations and beauties of nature. There is great inconsistency, to say the least of it, in the character of that man who adores the Creator, yet neglects and despises his works. That which was not beneath the creative power of the Almighty, is certainly not beneath our attention.

Give me the man who studies and admires na-

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* *I say* HE; *but I do not know whether M. stands for Moses or Mary.*

ture, for his heart will generally be found in the right place, and his hands usefully employed.

If your paper does not prove a useful remedy for the ills here spoken of, I fear the case is hopeless, and should be classed, as the doctors say, with the *opprobria medicorum*. R. H.

RAISING BLUEGRASS.

There is no farmer in Indiana, I suppose, well acquainted with bluegrass, and having tested its value thoroughly, for grazing purposes, who would be willing to dispense with it on reasonable terms.

First. Because it comes earlier in spring, and grows later in the fall than, perhaps, any other grass known in this country.

Secondly. It is extremely hardy, and will not kill out by pasturing, and will prosper pretty well in wood-land partially thinned out, where clover and timothy or herdgrass would dwindle and do but little good.

Thirdly. It goes more to roots than other varieties, and thereby constantly fertilizes the soil, and when plowed up and perfectly rotten, it makes the ground very loose and mellow. Some of the old "residenters" in these parts, who perhaps sprang from North Carolina, or some other great corn-hoeing region, where their forefathers taught them to make fair "*tater hills*" around it, and kill every spear of grass they could find, are, however, considerably puzzled about what to do with bluegrass in their corn fields, and are sometimes so scrupulous about it, they will take up the turfs and invert them on the stumps about their fields, so that the rays of the sun may give them a good scorching against the next hoeing when they are inverted; and all that, they say, will hardly kill them.

But corn bears a luxuriant and healthy appearance in bluegrass sod, while foxtail and some other varieties of wild grass almost invariably turn it yellow. I have known heavy crops of corn raised in old bluegrass fields with but very little injury to the grass, by a single year's cultivation; it would not need re-sowing, but spring up and make good pasture the next year.

For saving seed, the plan we have generally adopted is, to have a few acres of ground well set (the richer the better, for sowing bluegrass seed on your land is rather back-ache business.) The best plan we have tried is to cut it before it is fully ripe with a sickle or sythe or cradle; throw it in grips that it may dry a few days, then bind and store it away in a barn or any convenient dry place, where it may be prepared for sowing at leisure times or on rainy days. We then take a common cutting-knife, well sharpened, slip the bind near enough the but to save most of the heads, then begin at the seed end, clipping it as short as possible back as far as the band. We have also tried stripping it with the hand, but that is rather a slow business, and it hangs together so much like wool that it is a matter of impossibility to sow it evenly. I have known the beneficial results of bluegrass pastures so well, and think it a subject worthy the attention of every farmer, and for the reason I have not seen a better plan adopted, will offer the one we have generally practiced for sowing it in wood-land.

At the usual season for deadening timber, we go through the woods intended to be sown, deaden the most unprofitable timber, cut and heap the brush, which may be burned when dry. Pawpaw bushes should be cut in the hot dry weather in summer, with a sharp hatchet or briar sythe, two or three feet from the ground. Under this treatment I think they are more liable to die than when cut near the ground, and if they sprout it will be near the top of the stump, so they may be cut off just below the sprouts the next season, and so on till they *do* die.

If practicable, the leaves should be burned off in the fall before it is sown. Our time for sowing is generally, in the winter when there is a small snow on the ground, so that our tracks are easily seen; we generally use baskets to sow out of, as many as two or more, (as the case may be,) can sow in company, five or six feet abreast. As to the quantity of seed per acre, I do not know how much is best; but when sowing, we make it a practice to sow as large a handful as we can well hold, at five or six casts.

BUSHWHACKER.

We do not think you owe anything to poetry for your name; but you certainly *whack the bush* to some purpose. If you start as plump a rabbit every lick as you have done thus far, pray, don't withhold the rod. *Ed.*

BITTER-ROT, BARREN FRUIT TREES, MRS. PINK.

Mr. Editor:—I have become a reader of your—I was going to say, valuable paper. But I believe it is common to judge of the value of things by the quantum of good produced. If your lucubrations have the effect of provoking to faith and good works the farmers of Indiana and Ohio, we will pronounce them good. But I have somewhat against you. I guess a man had better be wide awake (instead of sleeping or dreaming) when he ventures on so delicate a matter as introducing his hands or eyes into a lady's bureau. Perchance some Mrs. Pinks might have dreams; and are you not aware that many husbands are perfectly satisfied that their better halve should have at least six or eight hours in the twenty-four in which their minds and tongues should both be at rest? But I have a charge of a more serious nature. You speak in a very light and profane manner with regard to a practice that many of our fore-fathers had, and numbers of good men follow. Are you a teacher in Israel and need to be informed that none but ruminating animals were accounted as clean (is not man an animal?) and why in the name of gookers and bodkins may he not chew the cud? You tell us in one of your numbers, that soaking tobacco in water and pouring it into a sheep's nose will kill worms, clear the brain, and cure the rot. (How much better is a man than a sheep?) If it will have that effect on the less, how much more on the greater, when he has it almost constantly in his mouth, and the vivifying influence constantly ascending and infusing life and health through every ramification of the brain? Ah, sir, you are a stranger to the many fine ideas that are in a twist of good tobacco.

As to smoking and snuffing, you are at liberty to say all the ugly things on the subject that you choose—*they* are a violation of the laws of na-

ture. Is it not evident that if man's mouth had been formed for smoking, some contrivance, such as a tube or proboscis, or safety-valve would have been fixed on one side to let off the steam and smoke? Or had the nose been designed as a receptical for snuff, it would have been reversed, and not be compelled to acquire that unnatural sinuous form it assumes so soon as the fingers begin to tap the lid of the snuff-box.

ENQUIRIES.

Will you be so good as to give me some information with regard to the bitter-rot in apples; (I have a fine orchard that has become infected.) I have long been acquainted with it, but have never been able to discover either cause or cure. Are seedlings more subject to it than grafts? Is there anything in location? Is it contagious? I have thought the better plan when a tree becomes infected, was to serve it as the Jews did the leprosy, (remove it out of the camp.) But as the priests were to be the judges in the matter, I refer to you. Again: Is there any way to fecundify — not a barren fig tree, but a pear tree? How old must it be in Indiana ere it will bear fruit? I have one in my orchard thirteen years old, and well grown, that never has even produced a blossom. What say you, shall I cut it down? In my native country I had in my orchard a fine plum tree that blossomed every season, but produced no fruit. I mentioned it to a good honest old Dutchman that believed in the moon. (But, perchance, you do not believe in it; well, be that as it may, I know it is a very convenient thing in a dark night.) He told me to take an auger, when the moon was in a particular situation, (I do not recollect the position,) and bore two holes through the trunk, east and west, north and south, and drive locust pins in them. Well, my faith was not much better than Naoma's, but as it was an easy matter, I did it. Whether it was owing to the Dutchman's faith, to some virtue in the moon or in the locust pins, or magnetism, or galvanism or some other ism, I cannot tell; the tree became fruitful.

GUSTAVUS.

SHRUBBERY.

The last article on this subject ended with "*To be continued.*" This was in Vol. I, p. 260. Has the editor forgotten his implied intention of giving us a more extended catalogue; the proper disposition and treatment of the plants, &c. We want a few out-line lessons on the tasteful arrangement of the evergreens and other trees; and shrubs and flowers of our yards and lawns. To paint a landscape on the dull ground, with trees and shrubs, and flowers and grass, with *effect*, is a more difficult task, than at first thought would be imagined. Even the position of a solitary tree strikes the eye favorably or unfavorably, according to its relation to surrounding objects. Who has not said within himself, as he has approached some humble dwelling-house, "What a beautiful little spot this is;" and yet, perhaps he has scarcely discovered what has made it so: there is nothing costly about the premises, and no apparent pains have been taken to decorate the grounds. Here are a few plain trees and a few common-place flowers, and clear grass-plat. What is it that charms the eye? It is that little genius *Art*, that is sitting snugly ensconced in the shrubbery, laughing in his native simplicity at the wondering gaze of the spectator.

On page 153 of Vol. I, the reader will find a catalogue of our native threes, shrubs and climbers, which are highly esteemed elsewhere as ornamental appendages to cultivated grounds. The famous "Detroit rose" is found abundantly in many of our low, wet lands: and is much more appropriately seen clambering over our cottages, than entangling the legs of our cattle in the swamps.

J. T. P.

ENQUIRIES

About the Index, Rabbits, Black Oats, Vetches, and Lucerne.

One of the most useful things belonging to a book on various subjects, is a good index; it is particularly useful to enable the reader to find any subject, without searching the whole work over. Such an article has been promised for volume 1, of the Indiana Farmer and Gardener; but I am sorry to say, it has never made its appearance: at page 9, vol. 2, the want of type was the excuse; I don't know what has happened since.

[The index was published and sent; but, probably, our friend's copy miscarried.—*Ed.*]

RABBITS. — Has any person near to Evansville any tame rabbits to sell? What is the price of a couple, male and female? and can they convey them to that place? when and where to?

BLACK OATS. — Almost every one that is asked the question, what kind of oats do best in the southern part of Indiana? the answer is "the black oats; because the stem is stronger, and is not so liable to be blown down by the storms as the white oats," yet, when I come to enquire where I could get some seed to raise these black oats, which every one said was the best, I was very much surprised to find that no one in this neighborhood had any to sow for themselves, or for any one else. This, I thought, was very neglectful on their part, and ought to be remedied.

VETCHES, called also French tares or La Romain. This is a kind of fodder very much cultivated in England, for feeding horses, cows, &c. It grows very quick, and is seen there almost any time of the year, except when the frost and snow is on the ground. It comes in very usefully during the summer, especially if other sorts of food are scarce. All kinds of cattle are fond of it, and it contains nourishment nearly equal to green clover. (See page 20, volume 1.) It also forms a rich manure for some kind of land, by sowing the seed, and when the stems are about twelve inches long, or before it goes to seed, it is plowed in. Has any body ever tried to raise any in this State? Will it answer to grow here? Which is the best time of the year to grass it? Has any one any seed to sell, and what is the price?

[We received a pint of seed from Huxley & Co., Cincinnati, last year; we presume it may be had there still. We do not know the price.—*Ed.*]

LUCERNE. — At page 71 is an experimental account of this plant, by J. T. P. It is a French plant, and seems likely to grow in this country. It was not cultivated in England, to any extent, until the present century. It is sown in April,

about twelve lbs. to the aker. It is said that any land will suit it. It is a very rich food for cattle, rather better than hay, (see page 20, vol. 1,) and is said to last on the land twenty years. Has any one else made any trial of it? and how did it answer? If it is made into hay, it requires to be well done, though most people cut it and use it whilst it is green. I have asked many farmers here, and they have never heard anything about it. Has any one any seed to sell? and what is the price. J. Bissell.

Evansville, March 18, 1846.

AGRICULTURAL CHEMISTRY.

Friend Editors:—Since the first appearance of the Farmer and Gardener, I have watched with much interest, the general tenor of its intelligence. I have found much to approve, and from the increase of agricultural papers of late years, I infer that farmers are beginning to learn that we live in an age of improvement.

There is a means for the effectual remedy of some of our greatest errors in the cultivation of the soil, which I hope will yet have a more conspicuous place in our agricultural publications. It has been occasionally referred to in a few numbers of your valuable periodical, and could your readers rightly appreciate the value of such intelligence, I dare say your judgment would be with mine in making it a leading object to which the farmer's attention is to be directed: I allude to *agricultural chemistry*.

There is a difficulty in our way which is not easily removed. Most of our farmers are of the old school class, who lived out their boyhood during, and soon after, the late wars with Britain, which equally prostrated the resources of our country, and our institutions of learning; when the *shoulder-blade* of a horse served for a slate, and a fire-coal for a pencil. Then the word *chemistry* was a strange sound, and even the learned of the old world were only entering its threshold; hence it cannot be inferred that, by them, such reading can be deeply interesting. But since the beauty and utility of this science has been, in a measure, revealed, it has even dared to step into our country schools, and by its multitude of beautiful experiments, to play off a thousand very sensible tricks, to the merriment and astonishment of school-boys.

One must understand chemical reading before he can be interested in it; and when he reflects that the office of chemistry is the analysis of matter, and the law of its organization, he cannot fail to be stimulated to learn its importance to agriculture, if he has ever felt alive for the art.

All vegetable and animal substances are composed, chiefly of the same ingredients, viz: *carbon, oxygen, hydrogen*, and *nitrogen*. Other elements enter in less proportions, which give a peculiar character to the plant, such as *potash, soda, lime, phosphorus, iron, sulphur, silica*, &c.

These *elements* are chiefly taken up in a state of solution from the soil, by the sap, or taken in by the leaves from the air, where the sap undergoes an essential change, preparatory for the nourishment of the plant. It will be perceived, that since plants derive their nourishment from the earth, it is essential that soil should possess these ingredients. Hence the reason why plants flourish according to their locality.

The sap of elm (U'lmus *campéstris*,) has by analysis been found to contain, water, volatile matter, acetate of potash, carbonate of lime, vegetable matter, and sulphate of potash.

The sap of beech (Fa'gus *sylvática*,) contains water, acetate of lime with excess of acid, acetate of potash, gallic acid, tannin, mucous extract, and acetate of alumina.

The sap of horse chestnut, (Æsculus *hippocastànum*,) contains water, extractive mucous matter, nitre, acetate of potash, carbonate of lime, and vauquelin.

It can readily be perceived by the illustrations here given, that the constituents of soil must be in a certain ratio in order that the plant may have a rapid and healthy growth. Common observation teaches the farmer, that our common rich bottom soil is precisely adapted to *corn*, while *wheat* is blighted. The phosphates which abound in such soil are essential to the proper growth of the *corn grain*, while potash is the ingredient for *wheat*. Knowing these facts, the whole subject of the nourishment of soils, salt, compost, &c. &c., each has distinctive qualities, and its utility must depend on the original quality of the soil.

The rotation of crops can not be well understood but by a knowledge of chemistry, and the intelligent agriculturist, who abandons the *fallow field*, no doubt often finds his profits, both in income and quality of soil, greatly in advance of the *grand-father* plan.

But how are we to make scientific farmers? Begin at our *schools*. Let *teachers* learn and teach *chemistry* as a leading subject for a farmer's education, and the work will be begun at the right place and carried on in the right way. A double advantage will be gained. He can render his school attractive and interesting by his experiments, and communicate valuable information to his students. A few acids and other materials necessary will be of little cost, and can be had at any drug-store, and he will often find himself pleased at his success.

A neighborhood association may be formed, by which these subjects may be investigated, and lectures illustrated by experiments delivered. While in this way much useful information is obtained, a love will be felt for the investigation of those fixed and complicated yet perfect laws which are concealed in the unfolding of the hidden organs of the germ, the economy and object of the bloom and the perfection of the fruit. One whose mind has been trained to such thoughts cannot fail to raise his thankful heart to a Divine Providence for the multitude and profusion of his gifts to man.

I will not extend my reflections farther in this subject at present, promising that I shall be heard from again, should this communication find its way into your paper. H. C. B.

Richmond, 3d mo., 1846.

The Better Way.—The sons of the poor die rich; while the sons of the rich die poor! What an encouragement to toil through life, acquiring wealth to ruin our children! Better to use our money as we go along—educate our sons—secure their virtue by habits of industry; and let them take care of themselves.

SELECTIONS.

SHEEP HUSBANDRY.

After so long a time, I will in some measure fulfil my engagement about writing you in regard to sheep and wool growing. My intention is, and has ever been, to get up a flock that would combine as much as possible the following traits: First, a strong constitution; a heavy fleece of *real wool*, of the very best quality that the world can boast; and a just form. It has been a favorite theory with me, that by judicious selection and good breeding, all this might be effected, and I have for years spared neither time, nor expense, nor travel, to bring it about; and if I have in any good measure effected my object, it has been by selecting according to my best judgment, disregarding entirely all names of breeds, and names of men as breeders, except so far as to examine their flocks carefully, or specimens of them, as they have been exhibited at the shows, or their different lots of wool at numerous manufacturing establishments.

I have never been able to depend in the least upon the statements of men who puff their sheep in the different agricultural papers. Some of them are *extremely ignorant* of the things they write about, and are *deceived* even by their *own experiments*, and do not know when wool is really coarse or fine, whether it is clear, or will waste much in cleansing. Others keep but a few, and give them in that way an extra chance; not knowing, when they publish their statements, that a few sheep on a farm will keep (when almost entirely neglected) in better order, yield more wool, increase faster, and be much less subject to distemper of every kind, than the same animals would be if a farm were fully stocked with them. A few sheep, on a middling good sized farm, may be neglected in summer or winter, almost as much as the deer in the wild forest, and become very large, healthy, and afford monstrous fleeces, from the fact that they have so fine a range; a thing more favorable to sheep than all the care, hay and grain, that can be given to a large flock. This is applicable to the very finest kind of sheep, in common with others. This will account for a part of the fine stories we get from some merchants or professional men newly-turned farmers, or other new begenners with sheep, who ascribe their success to something very happy in their treatment, or peculiar in the breed of their stock, and they feel in honor bound not to withhold such light from the world. Others there are who stop at no means that will enable them to sell sheep for breeders at exorbitant prices; these publish accounts of what wool they get from perhaps a *single* buck, giving him some *great name;* fix him out with a pedigree, send a *picture*, not a *portrait*—of him, to some editor (who, in several instances that we could name, is roundly paid for his puffing. Ed.), call him a Paular, a Montarco, or some other *Morus multicaulis* name of a breed, to raise an *excitement*, and take the advantage, of it, when their flocks are absolutely *contemptible!* I could mention a score of such gentlemen whose flocks I have examined, or whose lots of wool I have seen at Lowell and elsewhere. Others take the advantage of strong popular prejudice known to exist in favor of Merino over Saxony sheep, and knowing that most purchasers judge more by the outward appearance of a sheep than by any correct ideas they have of fleeces, will apply sperm oil, or some other grease, to the outer end of the fleeces of a Saxony, or some mongrel of Saxony, Merino, and native stock, and oftener than otherwise, a mean animal of its kind, and sell him for a pure Merino buck. Others breed from Saxony and crying up Merino sheep all the while, and selling their sheep as pure unmixed Merinoes, giving you at the same time a pedigree that, with a little addition, would make an interesting romance! If any one would inquire how to distinguish under such circumstances, I would say the most correct information as to the quality of any man's wool is to be had from the best manufacturing establishments of the country; and, finally, after getting what information can be collected from different large manufacturers, the balance is to be obtained by a careful examination of the flocks so recommended, and a comparison of flock with flock, as to all important traits

I have lately given to the Albany Cultivator the names of several wool-growers in different parts of the country who do not make much noise themselves in the periodicals, who, notwithstanding, are in my humble judgment entitled to some notice, as well as those who puff their own animals so finely. If persons who are prejudiced against the finer kinds of sheep on account of their being tender and delicate in proportion as they are fine, would select an equal number of the best constituted fine sheep, and put them side by side with the best they can obtain of the inferior grades, they would find that a very large share of all the advantage the coarser kinds have over the finest kind, is during the first four weeks after a lamb is dropped.

Some of the best flocks I have ever found in the country (after going over much of it time after time, beginning with Vermont and New Hampshire, and ending with Virginia,) are a mixture of Saxony and Merino, where the breeding has been upward, as I call it (for want of a better expression;) that is, where the advantage as to quality is on the side of the buck. The getting of really fine sheep in any part of the world is, I believe, the fruit of uncommon pains, nice discrimination, great perseverance, and incessant care: but it will cost nothing to reduce the quality of any breed, but to let it alone. It costs a considerable sum to raise the last stone on some of the monuments in our country, and some skill, but a very ordinary man for a trifle would get them down.

A few years since Vermont was celebrated for its fine wools; but in the eagerness of sheep masters for heavy fleeces, they have to a great extent lost their fine sheep. Five or six years downward breeding would entirely change the character of the wools of a whole nation. I have no doubt but an increase in weight of fleece may be effected while the fine quality is retained, and perhaps advanced; but, like every other real improvement, it must cost labor, perseverance, care, time, and skill. I am inclined to believe, that stock from the finest ewes, by a low-wooled buck, will generally fall considerably below the average of each ewe, and the buck, as to quality of wool; and I am quite sure that many cases will occur where the stock will not (to say the least) exceed the buck. Such is the downward tendency of almost every-

thing we have to do with. If this view is correct of breeding downward, then all that the ewes exceed the bucks will be nearly or quite lost. If it is best for us in the United States to grow fine wool at all, we ought to be less fickle in our course. European breeders are wonderfully steady and persevering, and whole districts unite as to a particular standard. Witness the Devon cattle, the Southdown sheep, the Berkshire pigs, &c. &c.

JOHN BROWN.

Akron, Summit Co., Ohio, Feb. 15, 1846.

Amer. Agriculturist.

From a Treatise in the "Store of Knowledge."

THE DISEASES OF THE HORSE.

BY WILLIAM YOUATT.

The principal diseases of the horse are connected with the circulatory system. From the state of habitual excitement in which the animal is kept, in order to enable him to execute his task, the heart and the blood vessels will often act too impetuously; the vital fluid will be hurried along too rapidly, either through the frame generally, or some particular part of it, and there will be *congestion*, accumulation of blood in that part, or *inflammation*, either local or general, disturbing the functions of some organ, or of the whole frame.

Congestion.—Take a young horse on his first entrance into the stables; feed him somewhat highly, and what is the consequence? He has swellings of the legs, or inflammation of the joints, or perhaps of the lungs. Take a horse that has lived somewhat above his work, and gallop him to the top of his speed; his nervous system becomes highly excited; the heart beats with fearful rapidity; the blood is pumped into the lungs faster than they can discharge it; the pulmonary vessels become gorged, fatigued, and utterly powerless—the blood, arrested in its course, becomes viscid, and death speedily ensues. We have but one chance of saving our patient—the instantaneous and copious abstraction of blood; and only one means of preventing the recurrence of this dangerous state, namely, not suffering too great an accumulation of the sanguineous fluid by overfeeding, and by regular and systematic exercise, which will inure the circulatory vessels to prompt and efficient action when they are suddenly called upon to exert themselves. The cause and the remedy are sufficiently plain.

Again, the brain has functions of the most important nature to discharge, and more blood flows through it than through any other portion of the frame of equal bulk. In order to prevent this organ from being oppressed by a too great determination of blood to it, the vessels, although numerous, are small, and pursue a very circuitous and winding course. If a horse highly fed, and full of blood, is suddenly and sharply exercised, the course of the blood is accelerated in every direction, and to the brain among other parts. The vessels that ramify on its surface or penetrate its substance are completely distended and gorged with it. Perhaps they are ruptured, and the effused blood presses upon the brain; it presses upon the origins of the nerves on which sensation and motion depend, and the animal suddenly drops powerless. A prompt and copious abstraction of blood, or, in other words, a diminution of this pressure, can alone save the patient. Here is the nature, the cause, and the treatment of *apoplexy*.

Sometimes this disease assumes a different form. The horse has not been performing more than his ordinary work, or perhaps he may not have been out of the stable. He is found with his head drooping and his vision impaired. He is staggering about. He falls, and lies half unconscious, or he struggles violently and dangerously. There is the same congestion of blood in the head, the same pressure on the nervous origins, but produced by a different cause. He has been accustomed habitually to overload his stomach, or he was, on the previous day, kept too long from his food, and then he fell ravenously upon it, and ate until his stomach was completely distended and unable to propel forward its accumulated contents. Thus distended, its blood-vessels are compressed, and the circulation through them is impeded or altogether suspended, The blood is still forced on by the heart, and driven in accumulated quantity to other organs, and to the brain among the rest; and there congestion takes place, as just described, and the animal becomes sleepy, unconcious, and, if he is not speedily relieved, he dies. This too is apoplexy; the horseman calls it *stomach staggers*. Its cause is improper feeding. The division of the hours of labor, and the introduction of the *nose-bag*, have much diminished the frequency of its occurrence. The remedies are plain,—bleeding, physicing, and the removal of the contents of the stomach by means of a pump contrived for that purpose.

Congestions of other kinds occasionally present themselves. It is no uncommon thing for the blood to loiter in the complicated vessels of the *liver*, until the covering of that viscus has burst, and an accumulation of the coagulated black blood has presented itself. This congestion constitutes the *swelled legs* to which so many horses are subject when they stand too long idle in the stable, and it is the source of many of the accumulations of serous fluid in various parts of the body, and particularly in the chest, the abdomen and the brain.

Inflammation is opposed to *congestion*, as consisting in an active state of the capillary arterial vessels; the blood rushes through them with far greater rapidity than in health, from the excited state of the nervous system by which they are supplied.

Inflammation is either *local* or *diffused*. It is confined to one organ, or to a particulnr portion of that organ; or it involves many neighboring ones, or it is spread over the whole frame. In the latter case it assumes the name of *fever*. Fever is general or constitutional inflammation, and is said to be *sympathetic* or *symptomatic* when it can be traced to some local affection or cause, and *idiopathic* when we cannot so trace it. The truth probably is, that every fever has its local cause, but we have not a sufficient knowledge of the animal economy to discover the cause.

Inflammation may be considered with reference to the membranes which it attacks.

The *mucous membranes* line all the cavities that communicate with the external surface of the body. There is frequent inflammation of the membrane of the mouth. *Blain*, or *Crossanthrax*, is a vesicular enlargement which runs along the side of the tongue. Its cause is unknown. It should be

lanced freely and deeply, and some aperient medicine administered. *Barbs*, or *paps*, are smaller enlargements, found more in the neigborhood of the bridle of the tongue. They should never be touched with any instrument; a little cooling medicine will generally remove them. *Lampas* is inflammation of the palate, or enlargement of the bars of the palate. The roof of the mouth may be slightly lanced, or a little aperient medicine administered; but the sensibility of the mouth should never be destroyed by the application of the heated iron. *Canker* and *wounds in the mouth* from various causes, will be best remedied by diluted tincture of myrrh, or a weak solution of alum.

Foreign bodies in the gullet may generally be removed by means of the probang used to the hoove of cattle; or the œsophagus may be opened, and the abstructing body taken out.

It is on the mucous membranes that *poisons* principally exert their influence. The *yew* is the most frequent vegetable poison. The horse may be saved by timely recourse to equal parts of vinegar and water injected into the stomach, after the poison has been as much as possible removed by means of the stomach pump. For arsenic or corrosive sublimate there is rarely any antidote.

Spasmodic colic is too frequently produced by exposure to cold, or the drinking of cold water, or the use of too much green meat. The horse should be walked about, strong friction used over the belly, and spirit of turpentine given in doses of two ounces, with an ounce each of laudanum and spirit of nitrous ether, in warm water or ale. If the spasm is not soon relieved the animal should be bled, an aloetic ball administered, and injections of warm water with a solution of aloes thrown up. This spasmodic action of the bowels, when long continued, is liable to produce *intro-susception*, or *entanglement*, of them, and the case is then hopeless.

Superpergation often follows the administration of a too strong or improper dose of physic. The torture which it produces will be evident by the agonized expression of the countenance, and the frequent looking at the flanks. Plenty of thin starch or arrow-root should be given both by the mouth and by injection; and, twelve hours having passed without relief being experienced, chalk, catechu, and opium should be added to the gruel.

(*To be continued.*)

A Bomb-proof Town.—I have somewhere heard of a regiment ordered to march into a small town and take it. I think it was in Tyrol; but wherever it was, it chanced that the place was settled by a colony who believed in the gospel of Christ and proved their faith by works. A courier from the neighboring village informed them that the troops were advancing to take the town. They quietly answerd, "if they *will* take it, they must." Soldiers soon came riding in with colors, and piping their shrill defiance. They looked around for an enemy and saw the farmer at his plow, the blacksmith at his anvil, and the women at their churns and spinning wheels. Babies crowded to hear the music, and the boys ran out to see the pretty trainers, with feathers and bright buttons, "the harlequins of the 16th century." Of course none of these was in proper position to be shot at. "Where are your soldiers?" they asked. "We have none," was the brief reply. "But we have come to take the town." "Well, friends, it lies before you." "But is there nobody to fight?" "No we are all Christians."

Here was an emergency altogether unprovided for; a sort of resistance which no bullet could hit; a fortress perfectly bomb-proof. The commander was perplexed. "If there is nobody to fight with, of course we cannot fight," said he. "It is impossible to take such a town as this." So he ordered the horses heads to be turned about, and they carried the human animals out of the village as guiltless as they entered, and perchance some what wiser. L. MARY CHILD.

It is computed that ten millions of francs are paid yearly in Paris for flowers. But it is said they have their perils as well as charms. Some kinds have a most deleterious effect upon the atmosphere; and often their effects are exhibited upon the nervous system; but oftener the imagination alone does the mischief.

A young lady of most sensitive nerves was relating one evening to some persons in her drawing room, that she had a horror of a rose; the perfume of that flower, said she, gives me a vertigo. The conversation was here interrupted by the entrance of a friend, who wore a rose bud in her hair; immediately our delicate lady grew pale, threw up her arms and fell gracefully back upon the sofa. "For goodness' sake madam retire, do you not see that it is you who caused this spasm?" "Me?" replied the astonished friend. "Certainly, it is the perfume of that rosebud in your hair." "Really if that is the case I must give up to you the guilty flower, but pray examine before condemning it." She then took the flower from her hair, and handed it to one of the persons who addressed her, and their inquietude soon gave way to another feeling; the fatal rosebud was artificial!!

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